

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. 6-95-115
WDID NO. 6B360304008

HESPERIA

36-AA-0050

REVISED WASTE DISCHARGE REQUIREMENTS

FOR

HESPERIA CLASS III LANDFILL

San Bernardino County

The California Regional Water Quality Control Board, Lahontan Region (Regional Board) finds:

1. Discharger

On August 9, 1995 the County of San Bernardino submitted a complete revised Report of Waste Discharge for the Hesperia Class III Landfill. For the purpose of this Regional Board Order (Order), the County of San Bernardino is referred to as the "Discharger."

2. Facility

The Hesperia Class III Landfill is the facility that receives and stores waste. For the purposes of this Order, the Hesperia Class III Landfill is referred to as the "Landfill."

3. Order History

The Regional Board previously adopted Waste Discharge Requirements (WDRs) for the Landfill under Board Order No. 6-85-59, which was adopted on June 13, 1985. Board Order No. 6-93-10041 was adopted on September 9, 1993, and amended the WDRs to incorporate the requirements of Title 40, Code of Federal Regulations, Parts 257 and 258 (Subtitle D) as implemented in the State of California under State Water Resources Control Board (SWRCB) Resolution No. 93-62.

4. Reason for Action

The Regional Board is revising these WDRs to require the Discharger to achieve compliance with the revised requirements of Article 5, Chapter 15, Title 23, California Code of Regulations (Chapter 15).

5. Landfill Location

The Landfill is located approximately three miles southwest of the City of Hesperia, San Bernardino County, within Section 13, T3N, R5W, SBB&M, as shown on Attachment "A," which is made part of this Order.

6. Description of Landfill

The Landfill is an unlined landfill which receives greater than 100 tons of waste per day. The Landfill is permitted by the California Integrated Waste Management Board (CIWMB) to receive 308 tons per day of waste. Based on the quantity of waste received per day, the Landfill is a Large Landfill as defined in Subtitle D. As such, Subtitle D requirements became effective for this Landfill on October 9, 1993. Regional Board staff have reviewed information submitted by the Discharger which illustrates the footprint of waste discharged as of October 9, 1993. The footprint documents the limits of waste which are exempt from Subtitle D requirements for composite liners, and is shown as Attachment "B", which is made a part of this Order.

7. Authorized Disposal Sites

The footprint of waste shown in Attachment "B" is the only authorized disposal site. A revised Report of Waste Discharge is required if the Discharger proposes to discharge waste outside the footprint area.

8. Waste Classification

The Landfill receives waste derived from the City of Hesperia and nearby communities. The waste is defined in Sections 2523 and 2524 of Chapter 15, Title 23, California Code of Regulations, as inert and non-hazardous solid waste, respectively. The waste is defined as municipal solid waste in Subtitle D.

9. Waste Management Unit Classification

Pursuant to Section 2533, Chapter 15, Title 23, California Code of Regulations, the Landfill is classified as a Class III waste management unit. The Landfill is classified as a Large Landfill in Subtitle D.

10. Subtitle D Compliance Status

Board Order No. 6-93-10041 required the submittal of several items in order to comply with Subtitle D. The Discharger has submitted complete information regarding the acceptance of liquids, the existing waste footprint, the distance from the Landfill to the nearest drinking water source and whether the Landfill is located in a 100 year floodplain or a wetlands, and a revised Water Quality Protection Standard (WQPS) which meets the requirements of Subtitle D and Chapter 15. The above listed items which have already been submitted fulfill the submittal requirements of Subtitle D as implemented by SWRCB Resolution No. 93-62. This Order requires submittal of concentration limits for the water quality protection standard.

11. Water Quality Protection Standard

The WQPS consists of constituents of concern (including monitoring parameters), concentration limits, monitoring points, and the point of compliance. The standard applies over the active life of the Landfill, closure and post-closure maintenance period, and the compliance period. The constituents of concern, monitoring points, and point of compliance are described in Monitoring and Reporting Program No. 95-115, which is attached to and made a part of this Order.

12. Statistical Methods

Statistical analysis of monitoring data is necessary for the earliest possible detection of a statistically significant release of waste from the Landfill. The Chapter 15 and Subtitle D regulations require statistical data analysis. Monitoring and Reporting Program No. 95-115 includes general methods for statistical data analysis. This Order also includes a time schedule for the Discharger to submit a site-specific statistical method to be used for monitoring data analysis.

13. Detection Monitoring

Pursuant to Section 2550.8 of Chapter 15, Title 23, California Code of Regulations, the Discharger has proposed a detection monitoring program. The current detection monitoring program has been designed to monitor the ground water for evidence of a release. No evidence of a release has been noted to date. The existing detection monitoring system is described in Monitoring and Reporting Program No. 95-115

14. Evaluation Monitoring

An evaluation monitoring program may be required, pursuant to Section 2550.9 of Chapter 15, Title 23, California Code of Regulations, to evaluate evidence of a release if detection monitoring and/or verification procedures indicate evidence of a release.

15. Corrective Action

A corrective action program (CAP) to remediate released wastes from the Landfill may be required pursuant to Section 2550.10 should results of an evaluation monitoring program warrant a CAP.

16. Site Geology

The Landfill is located on alluvial deposits of boulders, gravels, sand, silt, and clay. These materials are cemented with caliche. The soil is generally unconsolidated. Permeability of the soil range from low to moderate. The maximum thickness of the alluvial material is estimated to be about 1,000 feet. The San Andreas fault lies approximately eight miles southwest of the Landfill.

17. Site Hydrogeology

Depth to ground water is approximately 200 feet below ground surface at the Landfill. Ground water beneath the Landfill is present in both the alluvial deposits and the bedrock fractures, and flows toward the north-northeast.

18. Site Surface Hydrology and Storm Water Runoff

There is no perennial surface water flow at the Landfill. All storm water from the Landfill is regulated under the state Amended General Industrial Activities Storm Water Permit.

19. Site Topography

Site topography is shown on Attachment "A", which is made a part of this Order.

20. Climatology

The precipitation in the area of the Landfill is approximately 4.0 inches annually. The evaporation rate is approximately 110 inches annually.

21. Land Uses

The land uses at and surrounding the Landfill consists of the following:

- a. various maintained residences and commercial buildings in the City of Hesperia and surrounding communities; and,
- b. open desert land.

22. Closure and Post-Closure Maintenance

The Discharger has submitted a Preliminary Closure and Post-Closure Monitoring Plan (CPCMP). On November 17, 1994 and August 7, 1995, the Regional Board staff sent letters to the Discharger indicating that the CPCMP was complete but not technically adequate. This Order includes a time schedule which requires that the Discharger submit additional information in order to make the CPCMP technically adequate. This Order also requires that the Discharger review the plan annually to determine if significant changes in the operation of the Landfill warrant an update of the plan.

23. Financial Assurance

The Discharger has provided documentation that a financial assurance fund has been developed for closure, post-closure maintenance, and potential corrective action requirements. The fund has been developed as a single entity for all landfills owned and/or operated by the County of San Bernardino. The fund meets the requirements of Chapter 15 and Subtitle D for financial assurance. This Order requires the Discharger to report the amount of money available in the fund as part of the annual report. This Order also requires the Discharger to demonstrate in an annual report that the amount of financial assurance is adequate, or increase the amount of financial assurance. The Regional Board can access the closure financial assurance provided to the CIWMB. The CIWMB does not require financial assurance for potential releases.

24. Receiving Waters

The receiving waters are the ground waters of the Upper Mojave River Valley Ground Water Basin (Department of Water Resources Hydrologic Unit No. 6-42).

25. Lahontan Basin Plan

The Regional Board adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan) which became effective on March 31, 1995. This Order implements the Basin Plan.

26. Beneficial Ground Water Uses

The present and probable beneficial uses of the ground waters of Upper Mojave River Valley Ground Water Basin as set forth and defined in the Basin Plan are:

- a. municipal and domestic supply;
- b. agricultural supply;
- c. industrial service supply;
- d. freshwater replenishment; and
- e. aquaculture.

27. California Environmental Quality Act

These WDRs govern an existing facility that the Discharger is currently operating. The project consists only of the continued operation of the Landfill and is therefore exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) in accordance with Section 15301 of the CEQA Guidelines.

28. Notification of Interested Parties

The Regional Board has notified the Discharger and all known interested agencies and persons of its intent to adopt revised WDRs for the project.

29. Consideration of Interested Parties

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Receiving Water Limitations

The discharge of waste shall not cause the presence of the following substances or conditions in ground waters of the Upper Mojave River Valley Ground Water Basin:

1. any presence of toxic substances in concentrations that individually, collectively, or cumulatively cause detrimental physiological response in humans, plants, animals, or aquatic life; and
2. the presence of constituents of concern in concentrations that exceed background levels.

II. REQUIREMENTS AND PROHIBITIONS

A. General

1. The discharge shall not cause a pollution as defined in Section 13050 of the California Water Code, or a threatened pollution.
2. The discharge shall not cause a nuisance as defined in Section 13050 of the California Water Code.
3. The discharge of solid wastes, leachate, or any other deleterious material to the ground waters of the Upper Mojave River Valley Ground Water Basin is prohibited.
4. The discharge of waste except to the authorized disposal site is prohibited.
5. The disposal site shall be protected from inundation, washout, or erosion of wastes and erosion of covering materials resulting from a storm or a flood having recurrence interval of once in 100 years.
6. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources shall not contact or percolate through solid wastes discharged at the site.

7. The exterior surfaces of the disposal site shall be graded to promote lateral runoff of precipitation and to prevent ponding.
8. Water used for dust control during disposal site operations shall be limited to a minimal amount. A "minimal amount" is defined as that amount which will not result in runoff.
9. Wastes other than inert wastes shall not be placed in ponded water from any source whatsoever.
10. No hazardous or designated wastes shall be discharged at the Landfill.
11. The discharge of wastes in a manner that does not maintain a five foot soil separation between the wastes and the seasonal high ground water elevation is prohibited.
12. Waste discharged to the Landfill shall have a solids content of 50 percent by weight or greater.
13. The Discharger shall remove and relocate any waste which is or has been discharged at the disposal site in violation of these requirements. The waste shall be relocated to a site which is permitted to receive such wastes. All removal and relocation projects shall be coordinated with regulatory agencies, including the County of San Bernardino.
14. During periods of precipitation, the disposal activity shall be confined to the smallest area possible based on the anticipated quantity of wastes.
15. At closure, all facilities must be closed in accordance with a final CPCMP approved by the Regional Board.
16. At any given time, the concentration limit for each constituent of concern shall be equal to the background value of that constituent.
17. The concentration limit for each constituent of concern shall not be exceeded.

B. Detection Monitoring Program

The Discharger shall maintain a detection monitoring program as required in Section 2550.1(a)(1) of Chapter 15.

C. Evaluation Monitoring Program

The Discharger shall establish an evaluation monitoring program whenever there is statistically significant evidence of a release from the Landfill as required in Section 2550.1(a)(2) or (3) of Chapter 15.

D. Corrective Action Program

The Discharger shall institute a CAP when required pursuant to Section 2550.1(a)(4) of Chapter 15.

III. DATA ANALYSIS

A. Statistical Analysis

Statistical analysis of ground water and unsaturated zone detection monitoring program data shall be conducted. Analysis shall be conducted in accordance with statistical methods detailed in Monitoring and Reporting Program No. 95-115.

B. Nonstatistical Analysis

The Discharger shall determine whether there is significant physical evidence of a release from the Landfill. Significant physical evidence may include unexplained volumetric changes in the Landfill, unexplained stress in biological communities, unexplained changes in soil characteristics, visible signs of leachate migration, unexplained water table mounding beneath or adjacent to the Landfill, or any other change to the environment that could reasonably be expected to be the result of a release from the Landfill.

C. Verification Procedures

1. The Discharger shall immediately initiate verification procedures as specified below whenever there is a determination by the Discharger or Executive Officer that there is statistical or non-statistical evidence of a release. If the Discharger declines the opportunity to conduct verification procedures, the Discharger shall submit a technical report as described below under the heading Technical Report Without Verification Procedures.
2. The verification procedure shall only be performed for the constituent(s) that has shown evidence of a release, and shall be performed for those monitoring points at which a release is indicated.

3. The Discharger shall either conduct a composite retest using data from the initial sampling event with all data obtained from the resampling event or shall conduct a discrete retest in which only data obtained from the resampling event shall be analyzed in order to verify evidence of a release.
4. The Discharger shall report to the Regional Board by certified mail the results of the verification procedure, as well as all concentration data collected for use in the retest within seven days of the last laboratory analysis.
5. The Discharger shall determine, within 45 days after completion of sampling, whether there is statistically significant evidence of a release from the Landfill at each monitoring point. If there is statistically significant evidence of a release, the Discharger shall immediately notify the Regional Board by certified mail. The Executive Officer may make an independent finding that there is statistical evidence of a release.
6. If the Discharger or Executive Officer verifies evidence of a release, the Discharger is required to submit, within 90 days of a determination that there is or was a release, a technical report pursuant to Section 13267(b) of the California Water Code. The report shall propose an evaluation monitoring program OR make a demonstration to the Regional Board that there is a source other than the Landfill that caused evidence of a release.

D. Technical Report Without Verification Procedures

If the Discharger chooses not to initiate verification procedures, a technical report shall be submitted pursuant to Section 13267(b) of the California Water Code. The report shall propose an evaluation monitoring program, OR, attempt to demonstrate that the release did not originate from the Landfill.

IV. PROVISIONS

A. Rescission of Waste Discharge Requirements

Board Orders No. 6-85-59 and 6-93-10041 are hereby rescinded.

B. Standard Provisions

The Discharger shall comply with the "Standard Provisions for Waste Discharge Requirements," dated September 1, 1994, in Attachment "C", which is made part of this Order.

C. Monitoring and Reporting

1. Pursuant to the California Water Code Section 13267(b), the Discharger shall comply with the Monitoring and Reporting Program No. 95-115 as specified by the Executive Officer.
2. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of the Monitoring and Reporting Program.

D. Closure and Post-Closure Monitoring

The preliminary CPCMP shall be updated if there is a substantial change in operations. A report shall be submitted annually indicating conformance with existing operations. To comply with Chapter 15, a final CPCMP shall be submitted at least 180 days prior to beginning any partial or final closure activities or at least 120 days prior to discontinuing the use of the site for waste treatment, storage or disposal, whichever is greater. The CIWMB, pursuant to Title 14, California Code of Regulations, requires the submittal of a final closure plan a minimum of two years prior to closure.

E. Financial Assurance

The Discharger shall submit a report annually providing evidence that adequate financial assurance pursuant to the requirements of the WDRs has been provided for closure and for potential releases. Evidence shall include the total amount of money available in the fund developed by the Discharger. In addition, the Discharger shall either provide evidence that the amount of financial assurance is still adequate or increase the amount of financial assurance by the appropriate amount. An increase may be necessary due to inflation, a change in regulatory requirements, a change in the approved closure plan, or other unforeseen events.

F. Modifications to the Landfill

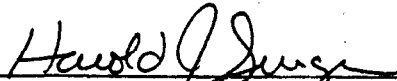
If the Discharger intends to expand the capacity of the Landfill, a report shall be filed no later than 90 days after the total quantity of waste discharged at this site equals 75 percent of the reported capacity of the site. The report shall contain a detailed plan for site expansion. This plan shall include, but is not limited to a time schedule for studies, design, and other steps needed to provide additional capacity. If site expansion is not undertaken prior to the site reaching the reported capacity, the total quantity discharged shall be limited to the reported capacity.

V. TIME SCHEDULE

Preliminary Closure and Post-Closure Monitoring Plan

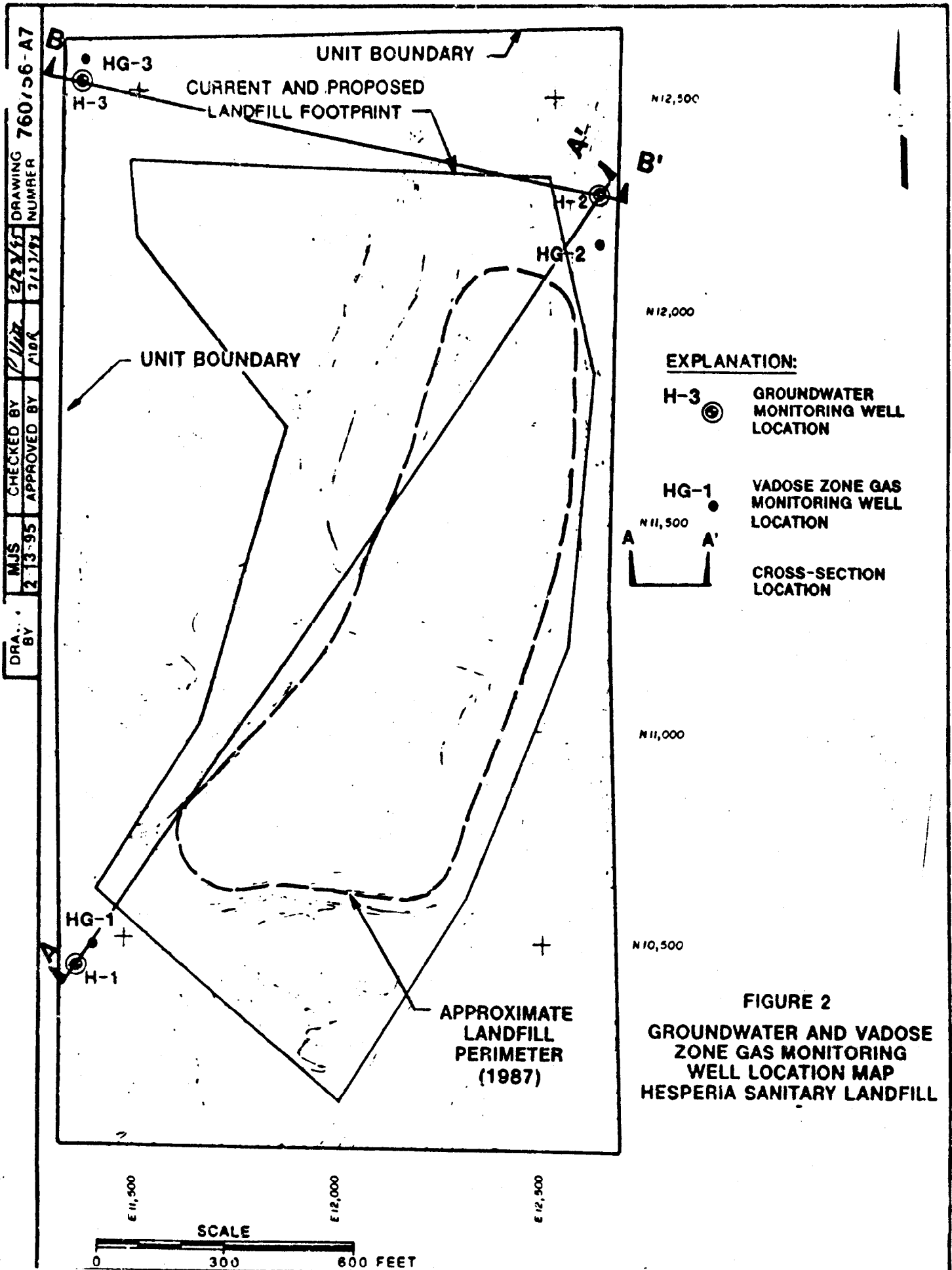
By **June 1, 1996**, the Discharger shall submit a Preliminary CPCMP in accordance with Chapter 15 of Calif. Code of Regs., Title 14 of Calif. Code of Regs., and Subtitle D of Code of Federal Regulations.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on November 9, 1995.



HAROLD J. SINGER
EXECUTIVE OFFICER

- Attachments: A. Location and Topography Map
B. Landfill Footprint of Waste
C. Standard Provisions for Waste Discharge Requirements



ATTACHMENT "B"

EXISTING FOOTPRINT OF WASTE AS OF OCTOBER 9, 1993

ONLY IN ORIGINAL BOARD ORDER

Attachment "C"
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

STANDARD PROVISIONS
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The Discharger shall permit Regional Board staff:

- a. to enter upon premises in which an effluent source is located or in which any required records are kept;
- b. to copy any records relating to the discharge or relating to compliance with the Waste Discharge Requirements;
- c. to inspect monitoring equipment or records; and
- d. to sample any discharge.

2. Reporting Requirements

- a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.
- b. Pursuant to California Water Code Section 13260(c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not limited to, all significant soil disturbances.
- c. The Owners/Discharger of property subject to Waste Discharge Requirements shall be considered to have a continuing responsibility for ensuring compliance with applicable Waste Discharge Requirements in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the Waste Discharge Requirements shall be reported to the Regional Board. Notification of applicable Waste Discharge Requirements shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.
- d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing and correct that information.
- e. Reports required by the Waste Discharge Requirements, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation.

- f. If the Discharger becomes aware that their Waste Discharge Requirements (or permit) is no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their Waste Discharge Requirements (or permit) be rescinded.

3. Right to Revise Waste Discharge Requirements

The Regional Board reserves the privilege of changing all or any portion of the Waste Discharge Requirements upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the Waste Discharge Requirements may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and reissuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the Waste Discharge Requirements which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the Waste Discharge Requirements. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the Waste Discharge Requirements.

7. Waste Discharge Requirement Actions

The Waste Discharge Requirements may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the Waste Discharge Requirements conditions.

8. Property Rights

The Waste Discharge Requirements do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the Waste Discharge Requirements including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the Waste Discharge Requirements shall be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Severability

Provisions of the Waste Discharge Requirements are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from disposal/treatment facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operator. The owner/operator must request the transfer in writing and receive written approval from the Regional Board's Executive Officer.

14. Definitions

- a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.
- b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

- a. All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. 95-115
WDID NO. 5B360304008

FOR

HESPERIA CLASS III LANDFILL

San Bernardino County

I. WATER QUALITY PROTECTION STANDARD

A. Ground Water

1. Point of Compliance and Monitoring Points

The Point of Compliance as defined in Chapter 15 is "a vertical surface located at the hydraulically downgradient limit of the waste management unit that extends through the uppermost aquifer underlying the unit". Ground water monitoring wells have been installed at monitoring points upgradient of the Landfill and at the Point of Compliance as part of the detection monitoring program. The locations of the ground water monitoring wells are illustrated on Attachment "A", which is made part of this Monitoring and Reporting Program No. 95-115.

2. Monitoring Parameters and Constituents of Concern

The monitoring parameters are the metal surrogates chloride, sulfate, nitrate as nitrogen, total dissolved solids, and volatile organic constituents. The constituents of concern are the monitoring parameters and the constituents listed in Appendix II to Part 258 of 40 CFR.

3. Concentration Limits

- a. The Discharger has collected background water quality data for the monitoring parameters contained in this Monitoring and Reporting Program. Background water quality data for all constituents of concern have not been collected. The WDRs include a time schedule to submit a complete Water Quality Protection Standard, which includes concentration limits that define background water quality for all constituents of concern.
- b. The concentration limit for each man-made organic constituent which is not proven to have originated from a source other than the Landfill is the laboratory detection limit for that constituent.

II. MONITORING

A. Discharge

The following shall be reported semi-annually:

1. The volume of solid waste (in-place compacted volume in cubic yards) discharged to the disposal site for the monitoring period.
2. The percent of the total landfill volume used for solid waste disposal, including waste disposed this monitoring period.
3. Comments describing effectiveness of the load checking program.

B. Detection Monitoring

A detection monitoring program has been developed by the Discharger as required by Article 5, Chapter 15, Title 23, California Code of Regulations and Title 40, Code of Federal Regulations, Parts 257 and 258 (Subtitle D). Monitoring shall be completed as follows:

1. Ground Water

a. Monitoring Points

Wells H-2 and H-3 are utilized as monitoring points for detection monitoring at the point of compliance. Well H-1 is currently utilized for background water quality monitoring. The ground water monitoring well locations are shown in Attachment "A" of this Monitoring and Reporting Program.

b. Monitoring Parameters

Ground water samples shall be collected and submitted for laboratory analysis at all monitoring points quarterly for the monitoring parameters listed in this Monitoring and Reporting Program.

c. Constituents of Concern

Ground water samples shall be collected and submitted for laboratory analysis at all monitoring points once every five years for constituents of concern listed in this Monitoring and Reporting Program.

2. Aquifer Characteristics

The parameters listed in Table 1 shall be calculated and reported in graphic and tabular form semi-annually.

Table No. 1 - Ground Water Field Measurements

<u>Parameter</u>	<u>Units</u>
Depth to Ground Water	feet bgs
Static Water Level	feet above mean sea level
Electrical Conductivity	micromhos/cm
pH	pH Units
Temperature	deg. F or C
Turbidity	NTUs

Ground Water Calculations

<u>Parameter</u>	<u>Units</u>
Slope of Ground Water	ft/mile
Direction of Ground Water Gradient	degrees
Velocity of Ground Water Flow	feet/year

3. Unsaturated Zone

a. Monitoring Points

The unsaturated zone monitoring system at the Landfill currently consists of lysimeters and soil gas wells. The lysimeters and soil gas locations are shown on Attachment "A" of this Monitoring and Reporting Program.

b. Monitoring Parameters and Constituents of Concern

The monitoring parameters and constituents of concern for lysimeter liquids shall be the same as for ground water. The monitoring parameters for soil gas shall be the gases methane, carbon dioxide, oxygen, and nitrogen. The constituents of concern for soil gases shall be the monitoring parameters and the volatile organic constituents listed under the laboratory analytical method EPA 8260.

c. Concentration Limits

The concentration limit for each constituent of concern in soil gas shall be the laboratory method detection limit for each constituent. The monitoring parameters shall not be required to have concentration limits because these parameters exist naturally in soil gas and development of background concentrations would be technically infeasible.

The concentration limit for each organic constituent in lysimeter liquid shall be the laboratory method detection limit for each constituent. This Monitoring and Reporting Program does not establish concentration limits for inorganic constituents in lysimeter liquid.

III. DATA ANALYSIS

A. Site Specific Statistical Analysis Method

The Executive Officer may approve statistical methods which are different from the general methods listed in Subtitle D provided that such methods are capable of determining a statistically significant release from the Landfill. The Discharger has proposed the prediction interval method as the site-specific statistical analysis method using intrawell comparisons. Based on data provided by the Discharger, the proposed method is capable of detecting a statistically significant evidence of a release from the Landfill. Statistical data analysis shall be completed in accordance with the proposed method.

B. Nonstatistical Method

In accordance with the WDRs, evaluation monitoring will be initiated without statistical verification if there is significant physical evidence of a release. Physical evidence can include time series plots, vegetation loss, or soil discoloration. Each semi-annual report shall comment on these physical elements.

IV. REPORTING REQUIREMENTS

A. Scheduled Reports To Be Filed With The Regional Board

The following periodic reports shall be submitted to the Regional Board as specified below.

Semi-Annual Detection Monitoring Reports

1. Results of sampling and laboratory analysis of ground water.

2. Results of statistical analysis of ground water data.
3. A letter transmitting the essential points in each report shall accompany each report. The letter shall include a discussion of any requirement violations found since the last report was submitted, and shall describe actions taken or planned for correcting those violations.
4. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting this schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the letter of transmittal.
5. For each monitored ground water body, a description and graphical presentation of the velocity and direction of ground water flow under/around the Unit, based upon water level elevations taken during the collection of the water quality data submitted in the report.
6. A map or aerial photograph showing the locations of vadose zone and ground water monitoring points.

B. Unscheduled Reports To Be Filed With The Regional Board

1. Notice of Evidence of a Release

Should the appropriate statistical or non-statistical data analysis indicate that there is evidence of a release, the Discharger shall:

- a. Immediately notify the Regional Board verbally as to the monitoring point(s) and constituent(s) or parameter(s) involved;
- b. Provide written notification by certified mail within seven days of such determination (Section 2550.8(j)(1), Article 5, Chapter 15, Title 23, California Code of Regulations). The notification should indicate the Discharger's intent to conduct verification sampling, initiate evaluation monitoring procedures, or demonstrate that a source other than the Landfill is responsible for the release.
- c. If the Discharger chooses to attempt to demonstrate that a source other than the Landfill is responsible for the release, the Discharger shall submit a supporting technical report within 90 days of detection of the release.

2. Evaluation Monitoring

The Discharger shall, within 90 days of verifying a release, submit a technical report pursuant to Section 13267(b) of the California Water Code proposing an Evaluation Monitoring Program. If the Discharger decides not to conduct verification procedures, or decides not to make a demonstration that a source other than the Landfill is responsible for the release, the release will be considered verified.

3. Engineering Feasibility Study Report

The Discharger shall, within 180 days of verifying the release, submit an Engineering Feasibility Study (Section 2550.8(k)(6) of Article 5) to preliminarily propose methods for corrective action.

C. General Provisions

The Discharger shall comply with Attachment B, the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is made part of this Monitoring and Reporting Program.

D. Submittal Periods

Semi-annual monitoring reports shall be submitted to the Regional Board on the 15th day of the month following the semester.

E. Annual Report

On or before November 30, 1996, and before November 30 every year thereafter the Discharger shall submit an annual report to the Regional Board. This report shall include the items described in the General Provisions for Monitoring and Reporting, or, if the Landfill has not yet become operative, a status report indicating a projected date for initiation of Landfill operations.

Ordered by:



HAROLD J. SINGER
EXECUTIVE OFFICER

Dated: November 9, 1995

- Attachments: A. Location of Monitoring Points
B. General Provisions for Monitoring and Reporting

